

Abstract

A catalyst supporting substrate includes a first region (54) which is formed on a substrate (50); and a second region (55) which is formed covering a part of the first region. The first region (54) includes a catalyst supporting portion (54a) containing a first material. The second region (55) includes a catalyst portion (55) containing a second material which is different from the first material. The first material includes a metal containing at least one of elements selected from the second group to the fourteenth group of the periodic table or a compound thereof. The second material is a catalyst which grows carbon nanotubes in a vapor phase.